

CLAIMS

1. A combination product comprising a positive oil in water emulsion wherein said emulsion comprises a compound presenting free NH₂ groups, at its natural state, at the oil-water interface, and an antibody, wherein said compound is linked to said antibody by a heterobifunctional linker, linking said NH₂ groups to SH groups on the antibody hinge region.
10
2. The combination product of claim 1 wherein said product has a positive zeta charge.
3. The combination product of claim 1 or 2, wherein said compound presenting NH₂ free groups is at least one cationic lipid selected from the group consisting of a C₁₀-C₂₄ alkylamine, a C₁₀-C₂₄ alkanolamine and a cholesterol ester.
15
4. The combination product of claim 3, wherein said compound presenting NH₂ free groups is stearylamine or oleylamine.
20
5. The combination product of any of claims 1 to 4, wherein said emulsion comprises colloid particles having an oily core surrounded by an interfacial film, wherein said interfacial film comprises said compound presenting free NH₂ at its natural state, nonionic surfactant and an anionic surfactant or anionic lipid, wherein said 25
30 colloidal particles have a positive zeta potential.

6. The combination product of 5, wherein said emulsion contains an active principle (drug).
7. The combination product of any of claims 1 to 6,
5 wherein said antibody is a polyclonal antibody.
8. The combination product of any of claims 1 to 6,
wherein said antibody is a monoclonal antibody selected
from the group comprising native forms, synthetic forms,
10 chimeric forms and humanized forms.
9. The combination product of any of claims .1 to 8,
wherein said antibody targets an antigen present at the
surface of a pathological cell.
15
10. The combination product of any of claims 1 to 9,
wherein said antibody targets a protein selected from the
group comprising HER-2, H-ferritin, PSMA, mucins, MUC 1,
CD 44 and retinal S-Ag.
20
11. The combination product of any of claims 1 to 6 and 8
to 10, wherein said antibody is AMB8LK antibody.
12. The combination product of any of claims 1 to 11,
25 wherein said linker is chosen from N-1 stearyl-maleimide
(SM), oleylmaleimide, succunimidyl trans-4-
(maleimidylmethyl)cyclohexane-1-carboxylate (SMCC) and
succinimidyl 3-(2-pyridyldithio)propionate (SPDP).
30
13. A method for producing a combination product
according to claim 1, comprising the steps of:

- 5 a) optionally reducing an antibody in order to obtain free SH group on its hinge region,
b) mixing a positive emulsion wherein said emulsion comprises a compound which, at its natural state, contains free NH₂ groups, wherein said compound is linked to a heterobifunctional linker by said NH₂ groups, with the antibody presenting free SH groups in order to obtain said combination product.

10

14. The method of claim 13, wherein said positive emulsion in step b) is obtained by:

- 15 i. linking an linker to a free NH₂ group naturally present on a compound that is used to obtain a positive emulsion, in order to obtain a modified compound,
20 ii. mixing said modified compound, which at its natural state contains free NH₂ groups, with the other products necessary to obtain an emulsion, in order to obtain a positive emulsion.

25 15. The method of claim 13, wherein said positive emulsion in step b) is obtained by:

- 30 i. mixing a compound, which at its natural state contains free NH₂ groups, with the other products necessary to obtain an emulsion, in order to obtain a positive emulsion,
ii. linking a linker to a free NH₂ group naturally present on said compound, in order to obtain a modified compound within said positive emulsion.